Please amend the following claims:

C1

1. (Amended) An RNA polymerase consisting of a wild type RNA polymerase wherein at least one amino acid present in a loop between helix Y and helix Z and/or a loop between helix Z and helix AA in the wild type RNA polymerase has been modified to enhance the ability of the wild type polymerase to incorporate 3'-deoxyribonucleotides and derivatives thereof in comparison with the corresponding wild type RNA polymerase.

3. (Amended) The RNA polymerase of claim 1, wherein the amino acid modification is substitution, insertion or deletion of an amino acid.

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4. (Twice Amended) The RNA polymerase of claim 1, wherein at least one amino acid present present in a loop between helix Y and helix Z and/or a loop between helix Z and helix AA of the wild type RNA polymerase is replaced with tyrosine.

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7. (Twice Amended) The RNA polymerase of claim 1, which has been modified so that the ability of the RNA polymerase to incorporate 3'-deoxyribonucleotides and derivatives thereof into a polynucleotide is increased by twice that of the wild type.

8. (Twice Amended) The RNA polymerase of claim 1, wherein the RNA polymerase is from T7 phage, T3 phage, SP6 phage, or K11 phage.

9. (Amended) An RNA polymerase consisting of a wild type RNA polymerase wherein at least one amino acid present in a region of the wild type RNA polymerase corresponding to amino acid residues 641-667 of SEQ ID NO:2 of RNA polymerase from T7 phage has been modified to enhance the ability of the RNA polymerase to incorporate 3'-deoxyribonucleotides and derivatives thereof into a polynucleotide in comparison with the corresponding wild type RNA polymerase.

10. (Twice Amended) The RNA polymerase of claim 1, wherein the modified wild type RNA polymerase has a further substitution, insertion or deletion of an amino acid other than the modification and wherein the further substitution, insertion, or deletion does not substantially affect the RNA polymerase activity.

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11. (Amended) An RNA polymerase which is an RNA polymerase from T7 phage, and has tyrosine at amino acid residue 644 and/or 667 of SEQ ID NO:2.

12. (Amended) The RNA polymerase of claim 11, wherein the RNA polymerase from T7 phage has a further substitution, insertion, or deletion of an amino acid other than the amino acid residues 644 and/or 667 of SEQ ID NO:2, and wherein the further substitution, insertion, or deletion does not substantially affect the RNA polymerase activity.

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13. (Amended) An RNA polymerase consisting of a wild type T7 RNA polymerase provided that 644th amino acid residue of SEQ ID NO:2 of the wild type T7 RNA polymerase, phenylalanine, has been replaced with tyrosine.

14. (Amended) An RNA polymerase consisting of a wild type T7 RNA polymerase provided that 667th amino acid residue, phenylalanine, of SEQ ID NO:2 of the wild type T7 RNA polymerase has been replaced with tyrosine.

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15. (Twice Amended) The RNA polymerase of claim 13, wherein 665th amino acid residue, leucine, of SEQ ID NO:2 of the wild type T7 RNA polymerase has been replaced with proline.

C3 Cont.

16. (Amended) An RNA polymerase consisting of a wild type T7 RNA polymerase provided that 644th amino acid residue, phenylalanine, of SEQ ID NO:2 of the wild type T7 RNA polymerase has been replaced with tyrosine, and 667th amino acid residue, phenylalanine, of SEQ ID NO: 2 of the wild type T7 RNA polymerase has been replaced with tyrosine.

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17. (Amended) The RNA polymerase of claim 16, wherein 665th amino acid residue, leucine, of SEQ ID NO:2 of the wild type T7 RNA polymerase has been replaced with proline.

18. (Amended) An RNA polymerase which is an RNA polymerase from T3 phage, and has tyrosine at amino acid residue 645 or 668 of SEQ ID NO: 14.

19. (Amended) The RNA polymerase of claim 18, wherein the RNA polymerase from T3 phage has further substitution, insertion, or deletion of amino acid other than the amino acid residues 645 and 668 of SEQ ID NO:14, and wherein the further substitution, insertion, or deletion does not substantially affect the RNA polymerase activity.

20. (Amended) An RNA polymerase which is an RNA polymerase from K11 phage, and has tyrosine at one or more amino acid residues 664-669 and 690 of SEQ ID NO:15.

21. (Amended) The RNA polymerase of claim 20, wherein the RNA polymerase from K11 phage has a further substitution, insertion, or deletion of amino acid other than the amino acid residues 664-669 and 690 of SEQ ID NO:15, and wherein the further substitution, insertion, or deletion does not substantially affect the RNA polymerase activity.

22. (Amended) An RNA polymerase which is RNA polymerase from SP6 phage, and has tyrosine at one or more amino acid residues 633-638 and 670 of SEQ ID NO:16.

23. (Amended) The RNA polymerase of claim 22, wherein the RNA polymerase from SP6 phage has a further substitution, insertion, or deletion of an amino acid other than the amino acid residues 633-638 and 670 of SEQ ID NO:16, and wherein the further substitution, insertion, or deletion does not substantially affect the RNA polymerase activity.

24. (Twice Amended) A polynucleotide encoding at least the RNA polymerase of claim 1.

Please add the following new claims:

26. (New) The RNA polymerase of claim 9, wherein at least one amino acid present in the amino acid residues 641-667 of SEQ ID NO:2 is replaced with tyrosine.

27 (New) The RNA polymerase of claim 26, wherein the replaced amino acid is phenylalanine.

28. (New) The RNA polymerase of claim 9, wherein the modified wild type polymerase has a further substitution, insertion, or deletion of an amino acid other than the modification, which does not substantially affect the RNA polymerase activity.